

Hack the Gap: Fixing Cybersecurity's Broken Talent Pipeline

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[Lightcast.io](https://lightcast.io)

How Often Have You Heard Employers Say...




We can't hire
cybersecurity workers!

We can't afford
cybersecurity workers!

We can't keep
cybersecurity workers!



...Followed by Students Saying...



**I graduated and can't
find a job!**

**Employers say I need
more experience!**

**No one will hire me without
a bachelor's degree!**

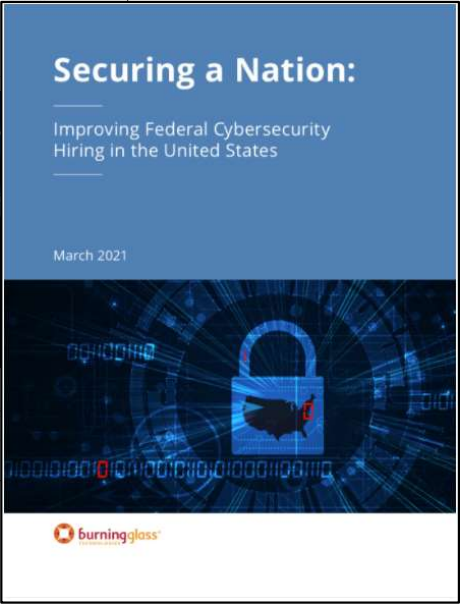
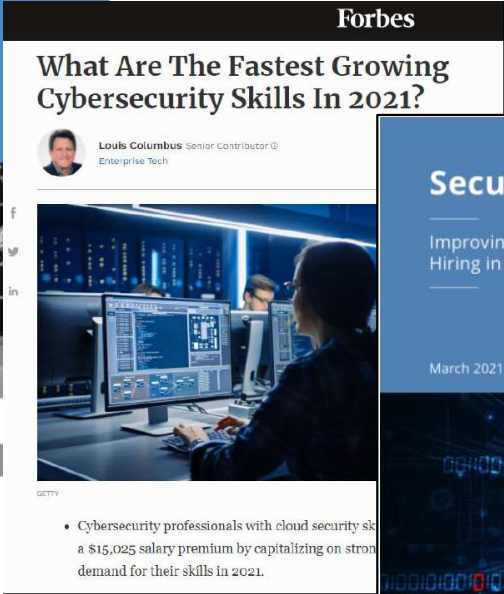


The Cybersecurity Talent Pipeline
is Broken



You Can't Prepare Workers for Jobs You Know Nothing About

Lightcast Illuminates the Cybersecurity Job Market



Tracking the Workforce of Today and Tomorrow

Emsi Burning Glass Collects Workforce Data from Thousands of Sources Around the Globe



Talent Pool Estimates

Government collected data providing structured job counts to benchmark with.



Skills

Dig beneath vague and unreliable job titles to find the specific skills you need.



Locations

Compare over 1,500 markets globally for talent supply with a singular taxonomy.



Job Postings

See real-time trends on postings in almost 750 markets around the world.



Companies

See top companies who are hiring or currently employing the talent you need.



Profiles

See beyond government data to analyze over 350 million aggregated resumes to see deep insights.

Regularly featured in:

the Atlantic

Forbes

Harvard
Business
Review

The
New York
Times

WSJ

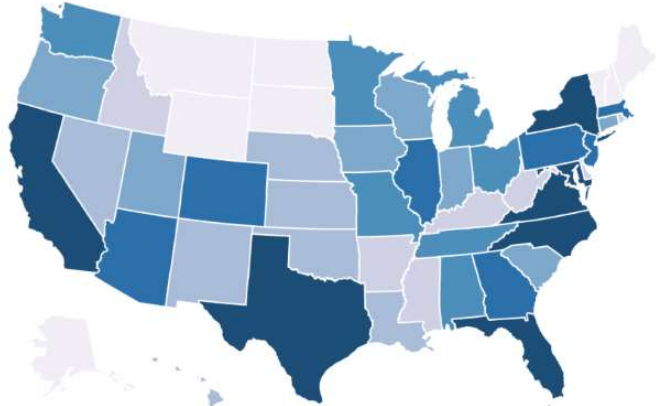
USA
TODAY



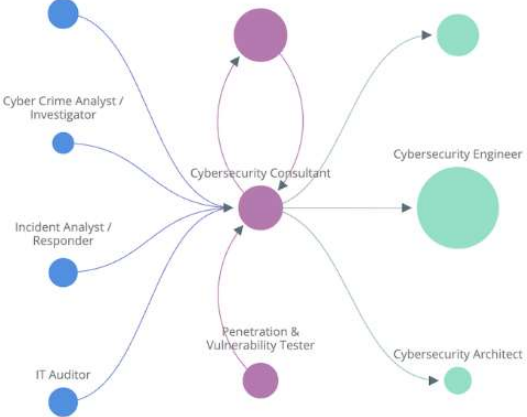
Deciphering the Cybersecurity Job Market with CyberSeek.org



Interactive Map



Career Pathway



What Do the Data Tell Us About the Cybersecurity Workforce?

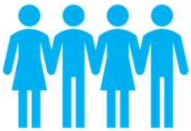


Cybersecurity Workforce Demand is

Large and Growing Rapidly



Nearly **770,000 cyber job openings** in the U.S. every year



Over 1.1 million existing cybersecurity workers

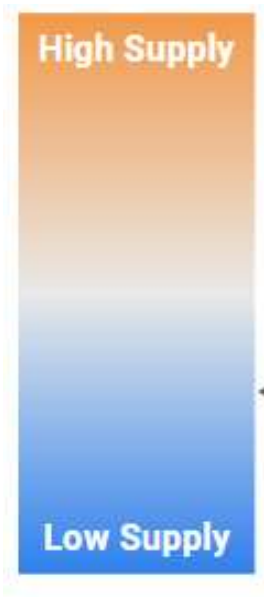


30% YoY growth
(2.4 times faster than all jobs)



But Supply Can't Keep Up with Demand

Cybersecurity Worker Supply
and Demand Ratio



65%

Cybersecurity jobs take
21% longer to fill
than other IT jobs

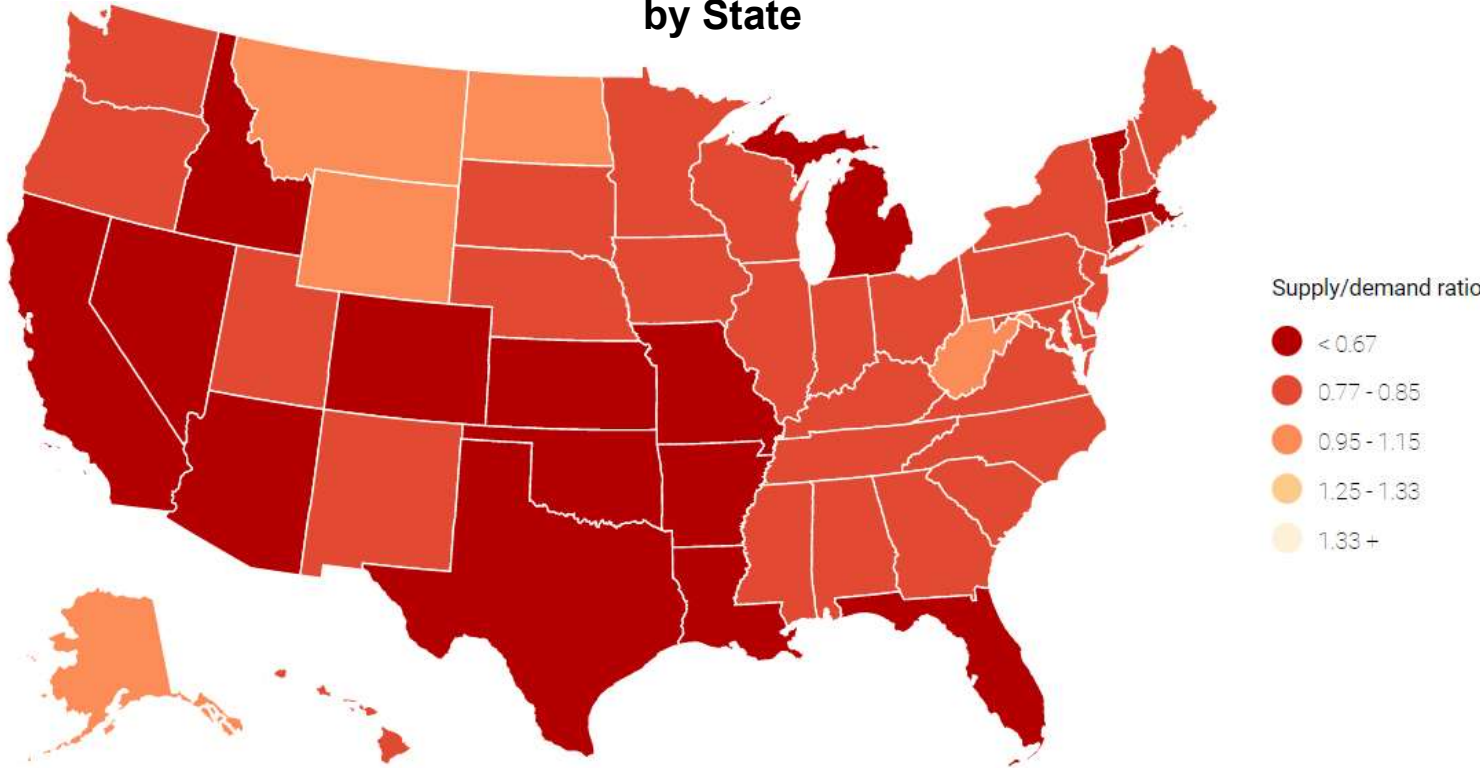
Cybersecurity jobs pay
10% higher salaries
than other IT jobs



The Cybersecurity Supply Shortage is Widespread

Cybersecurity Job Demand Outpaces Supply in All States Except Wyoming

Cybersecurity Supply/Demand Ratio by State



Source: CyberSeek.org

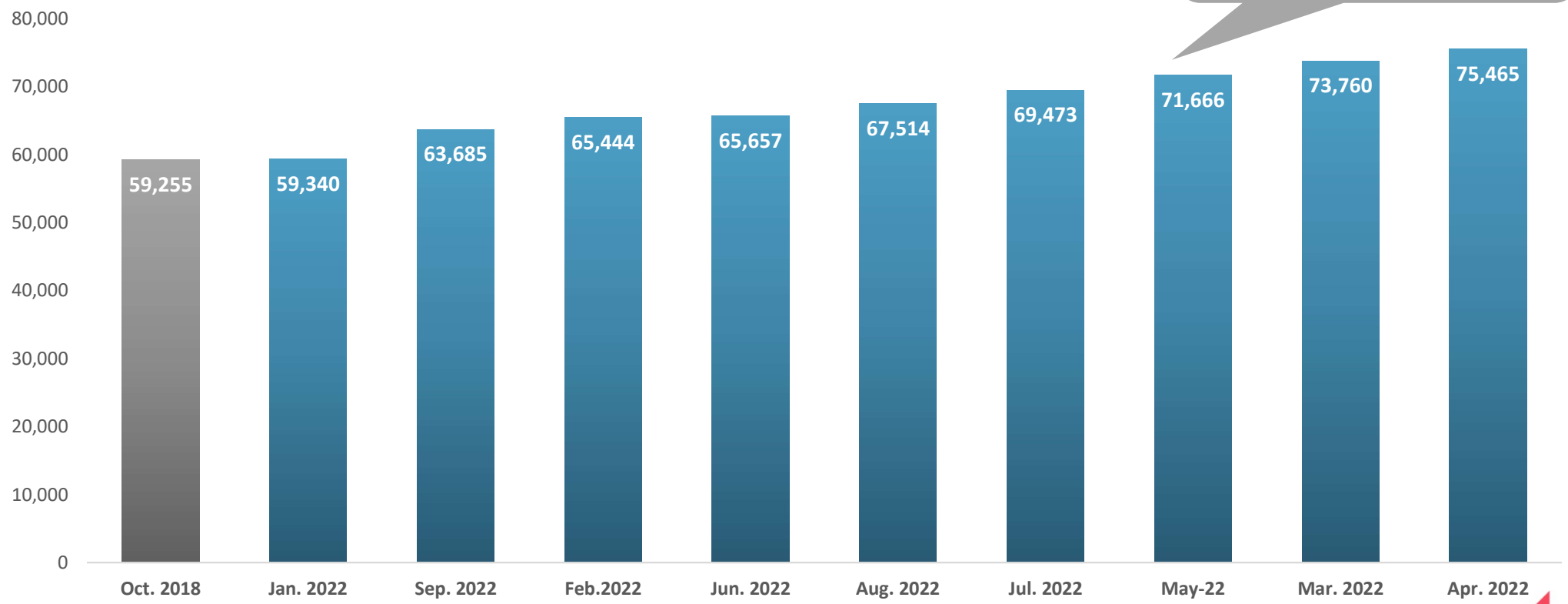


The Shortage Could Get Even Worse

2022 Is Smashing Cybersecurity Job Demand Records

Largest Months for Cybersecurity Job Openings
(recorded in the past 10 years)

Every month through September this year was among the 10 largest months on record for cybersecurity job openings

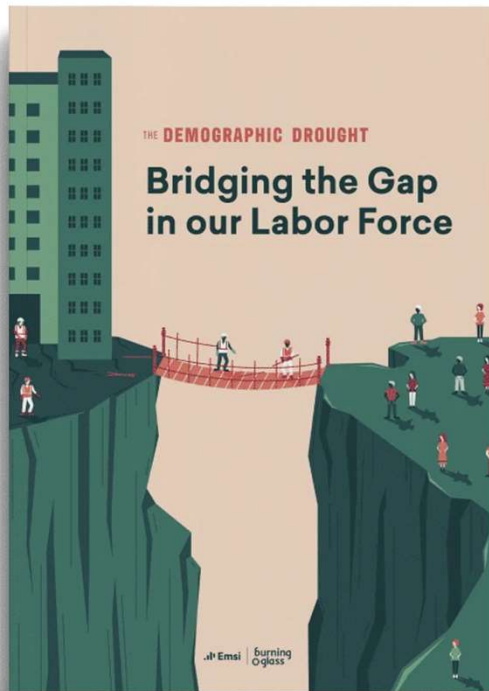


Why is the Cybersecurity Talent Pipeline Broken?



We Are Facing a Demographic Drought in Cybersecurity and Beyond

Long-Term Talent Shortages Could Become the Norm



Declining Labor Force
Participation

+

Declining Birth Rates and
Immigration

=

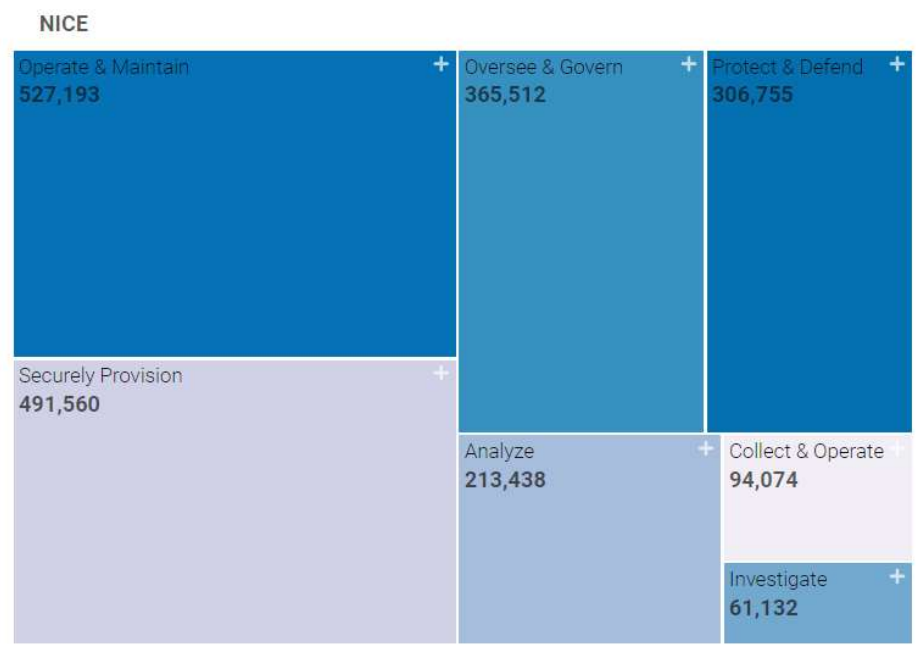
Long-Term Talent
Shortages



Cyber Demand is Spreading Across Roles and Industries

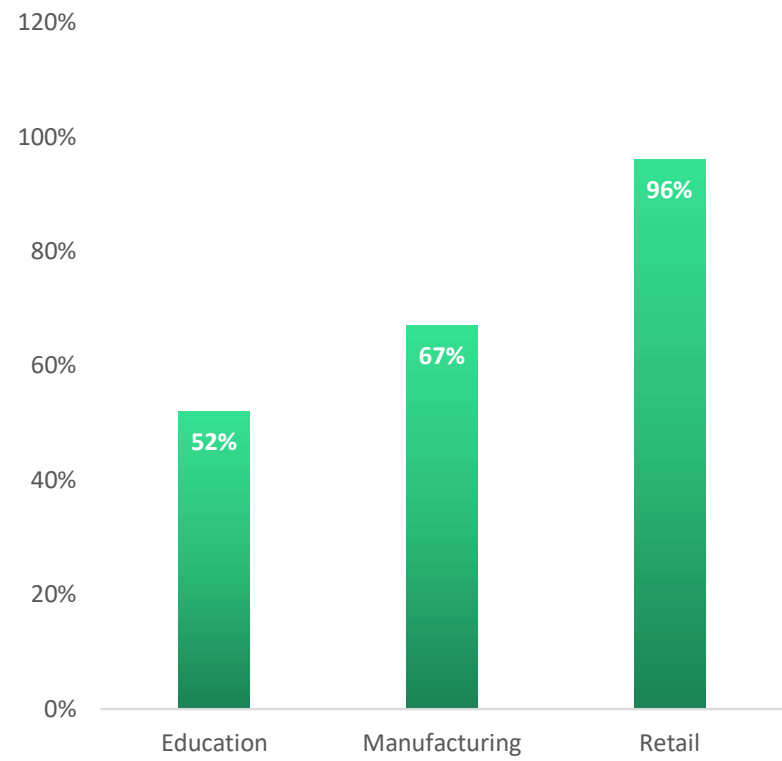
And Every Role and Industry Has Unique Requirements

JOB OPENINGS BY NICE CYBERSECURITY WORKFORCE FRAMEWORK CATEGORY ⓘ



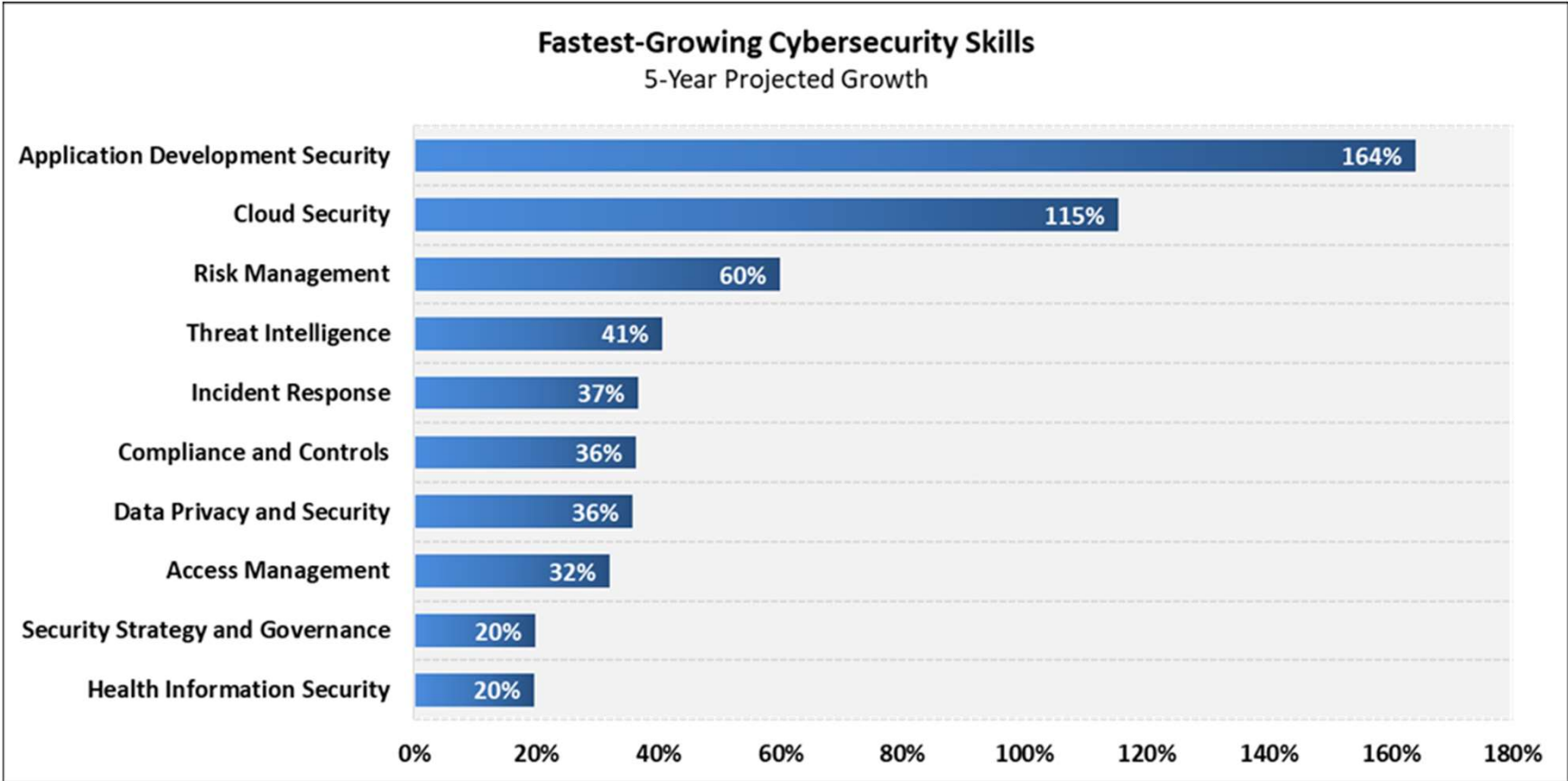
Notes: The NICE Workforce Categories are not mutually exclusive- one job could perform multiple roles within the framework. The data shown here are not intended to be aggregated.

Fast-Growing Industries for Cybersecurity Job Demand
YoY Growth (Sept. 21 – Sept. 22)

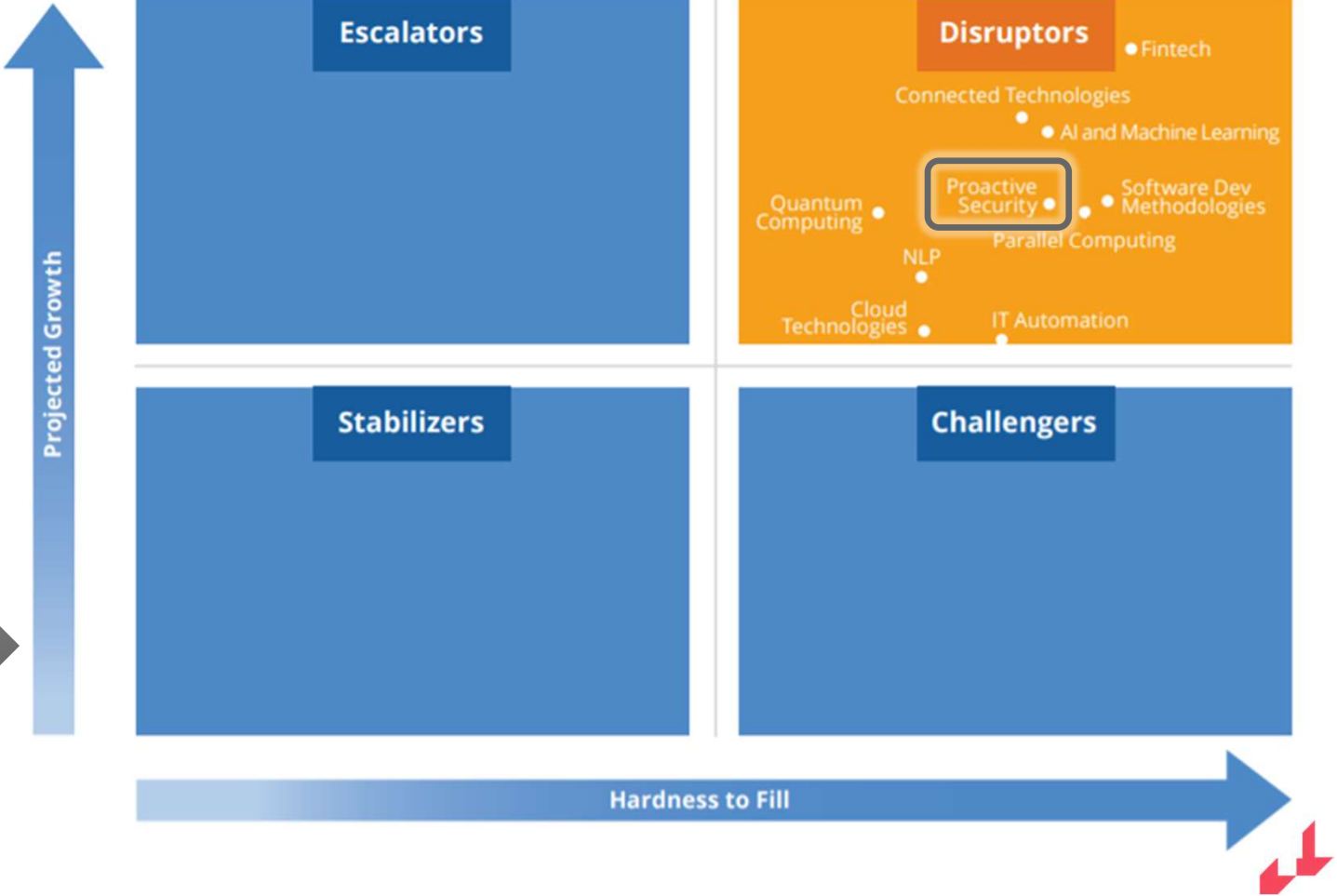
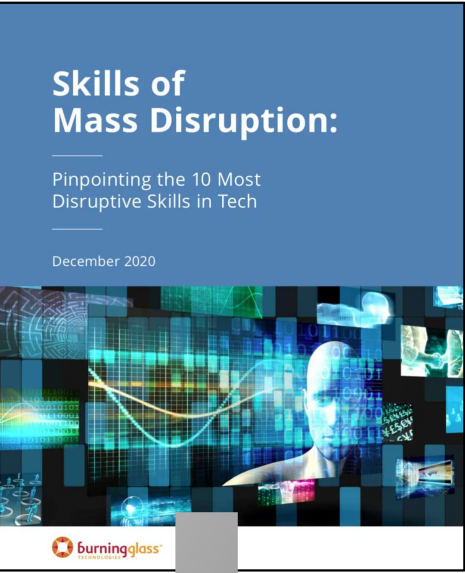


Cybersecurity Skills Are Constantly Evolving

Emerging Skills Emphasize Building Secure Digital Infrastructure from the Ground Up



Proactive Cybersecurity Skills Are Among the Most Disruptive Skills in Tech

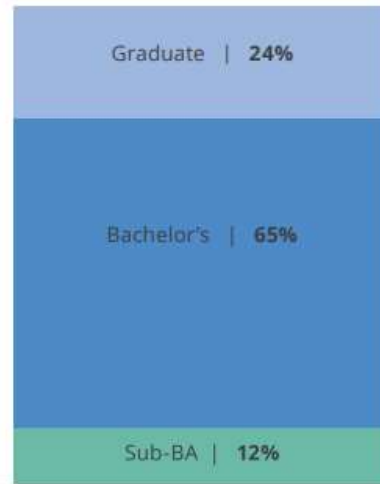


The Cybersecurity Career Ladder is

Missing A Rung

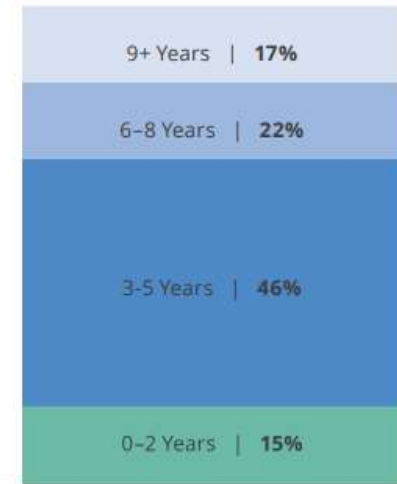


Cybersecurity education requirements



Employers request heightened education and experience levels, preventing new workers from entering the field

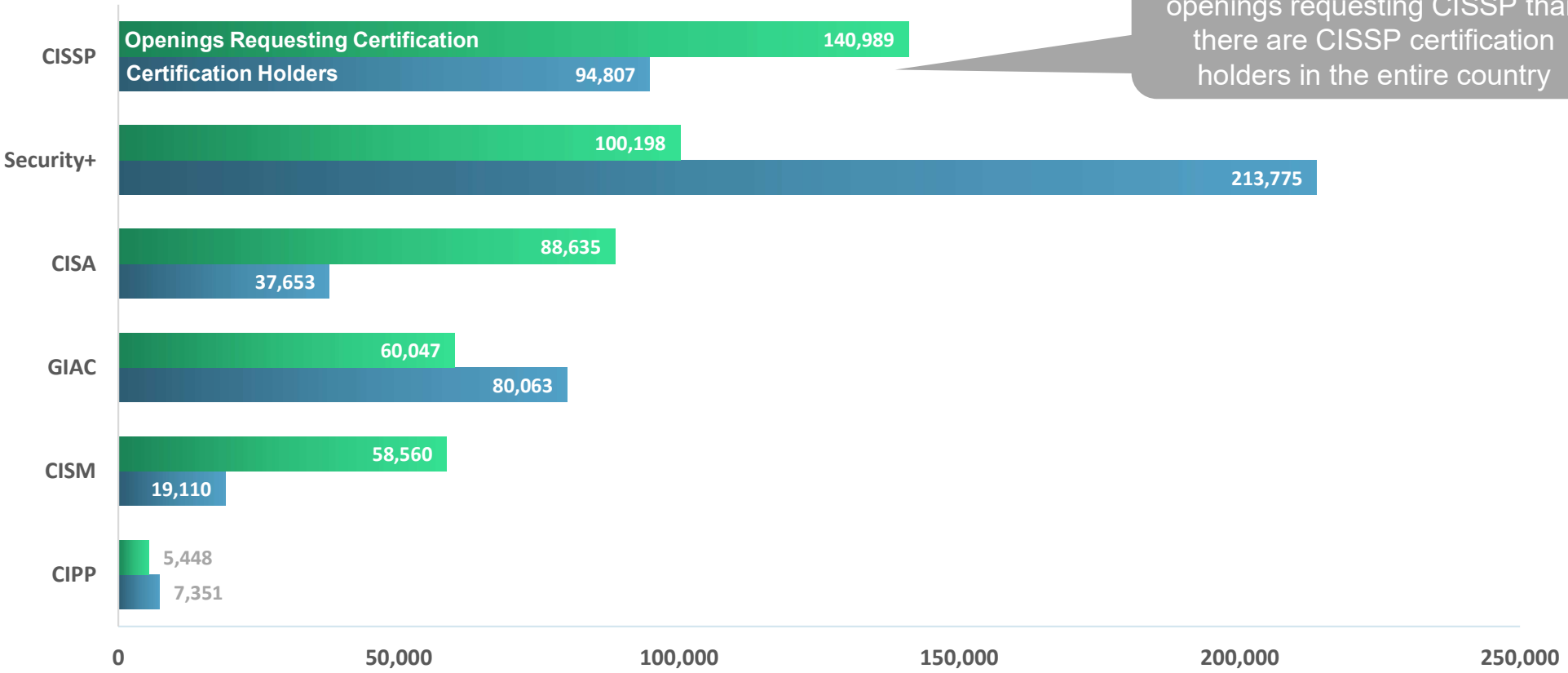
Cybersecurity experience requirements



Certifications - Over-Requested and Undersupplied?

A Degree May Not Be Enough to Get a Foot in the Door

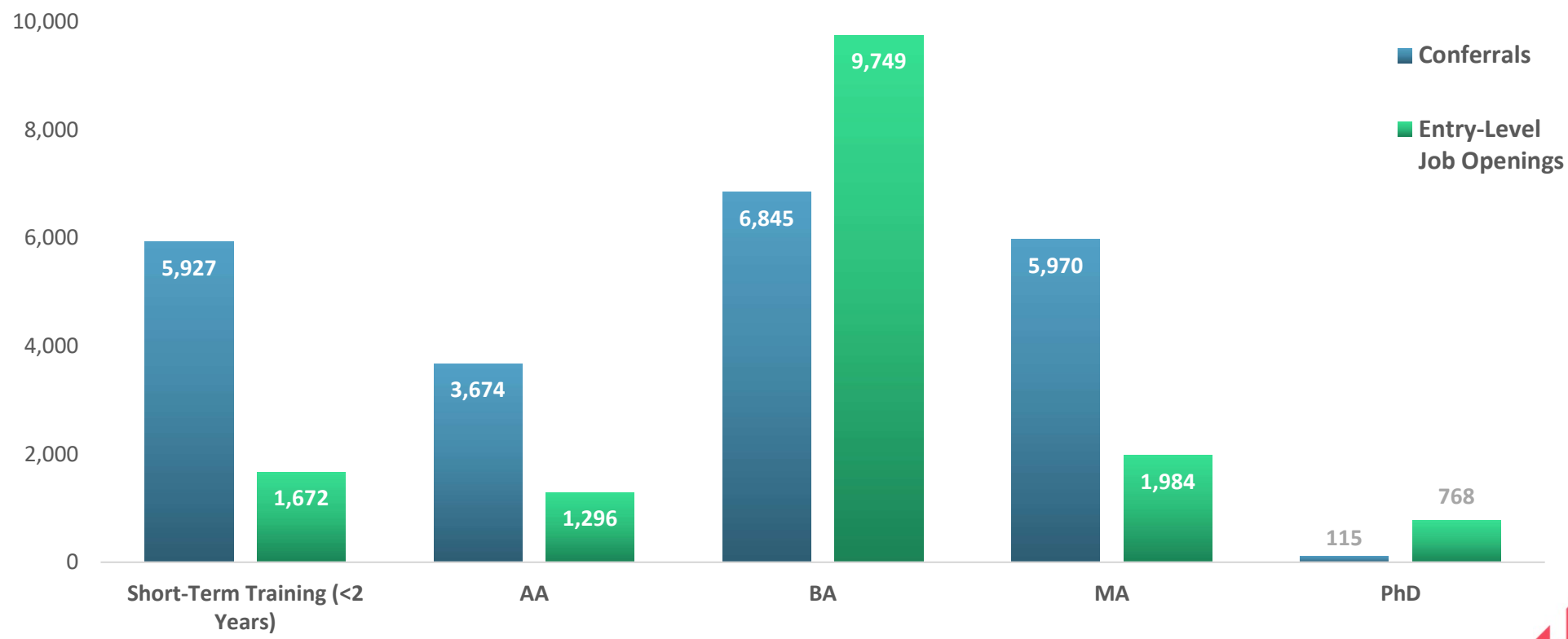
There are over 45,000 more job openings requesting CISSP than there are CISSP certification holders in the entire country



We Don't Have Four Years to Wait for New Graduates

Four-Year Cybersecurity Programs Can't Keep Up with Demand, But Community Colleges Can

Conferrals Vs. Entry-Level Job Openings for Cybersecurity Analysts by Degree Level (2021)



How Do We Fix the Cybersecurity Talent Pipeline?



Shift Hiring and Training Focus to Skills - NOT Credentials

The Old Approach:

**Hire and Train
for Degrees and
Certifications**



The New Approach:

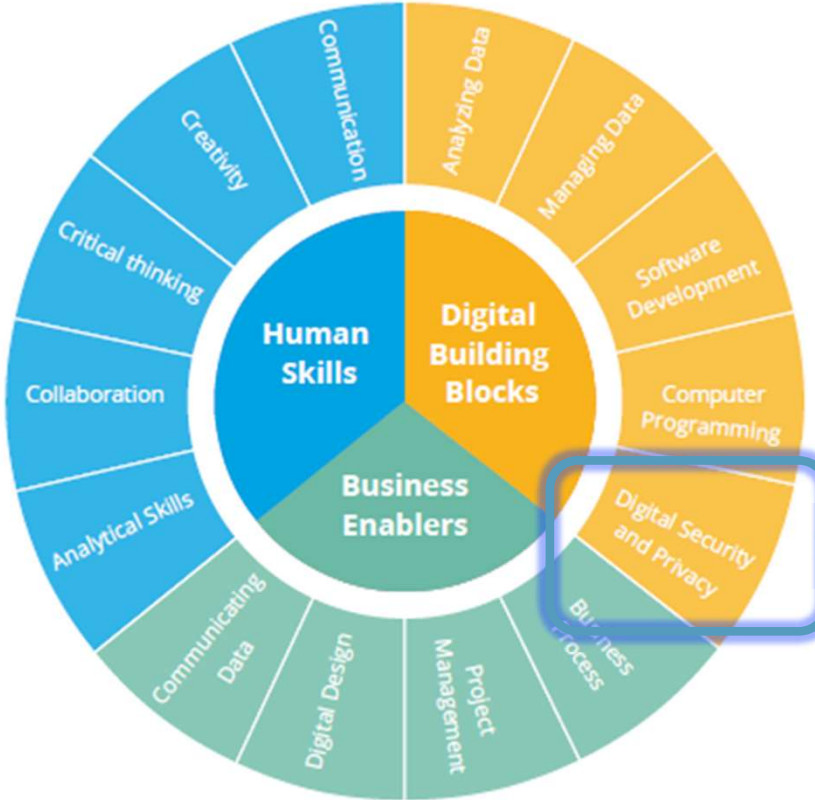
**Hire and Train for
Skills**



Build Foundations for the Future

Make Cybersecurity a Foundational Skill for Everyone

The New Foundational Skills for the Digital Economy



In a 21st-century digital economy,
everyone needs digital security skills



Train for High-Value Skills

Arm Students with the Skills Employers Most Value...Not Just Degrees

Skill	5-Year Projected Growth	Postings Oct. 2019-Sept. 2020	Salary Premium
Application Development Security	164%	29,635	\$12,266
Cloud Security	115%	19,477	\$15,025
Risk Management	60%	57,967	\$13,379
Threat Intelligence	41%	60,039	\$9,609
Incident Response	37%	23,497	\$5,683
Compliance and Controls	36%	54,770	\$12,423
Data Privacy and Security	36%	88,527	\$5,256
Access Management	32%	118,096	\$6,451
Security Strategy and Governance	20%	82,952	\$7,735
Health Information Security	20%	413,687	\$738



Many emerging cybersecurity skills **boost salaries by \$10k-\$15k+**



Right-Size Job Requirements

Focus on Need-To-Haves Versus Nice-To-Haves

Sample Cybersecurity Job Requirements

IT Security Analyst

Qualifications

- 2+ years of progressively increasing responsibility in the areas of information security, cloud security, or cybersecurity
- Bachelor's degree in IT, cybersecurity or related area of study.
- **Direct cloud (AWS) experience**
- **Strong understanding of testful API development, SDLC processes, and security automation desired**
- Experience with multiple environments and operating systems, devices and databases including Windows Server, Active Directory, VMWare, Azure, AWS.
- Strong analytical and problem solving skills
- Strong Incident Response background is preferred
- Fundamental understanding of security related technologies such as SIEM and SOAR
- Must have obtain and maintain one or more Cloud or Security certifications such as AWS, Azure, CISSP, CISA, CISM, CIPT, SSCP, CCSP
- Strong understanding of information security standards, concepts, controls, testing techniques and technical risk assessment

Removing a BA requirement
Saves \$16,000 and grows entry-level candidate pool by 61%

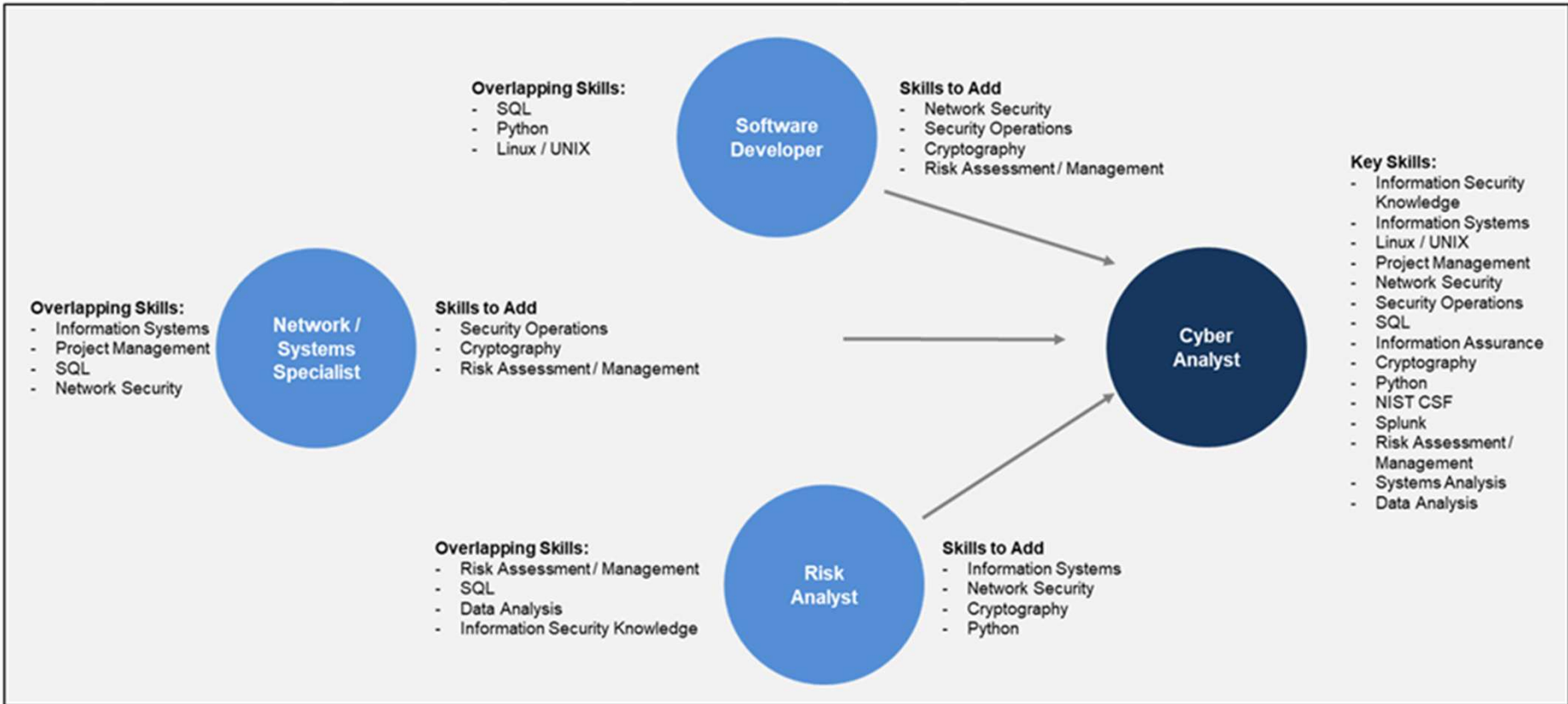
Building, not buying, emerging cybersecurity skills
Saves \$10,000+ for each emerging skill

Eliminating specific certification requirements
Drops average salary costs by \$9,000



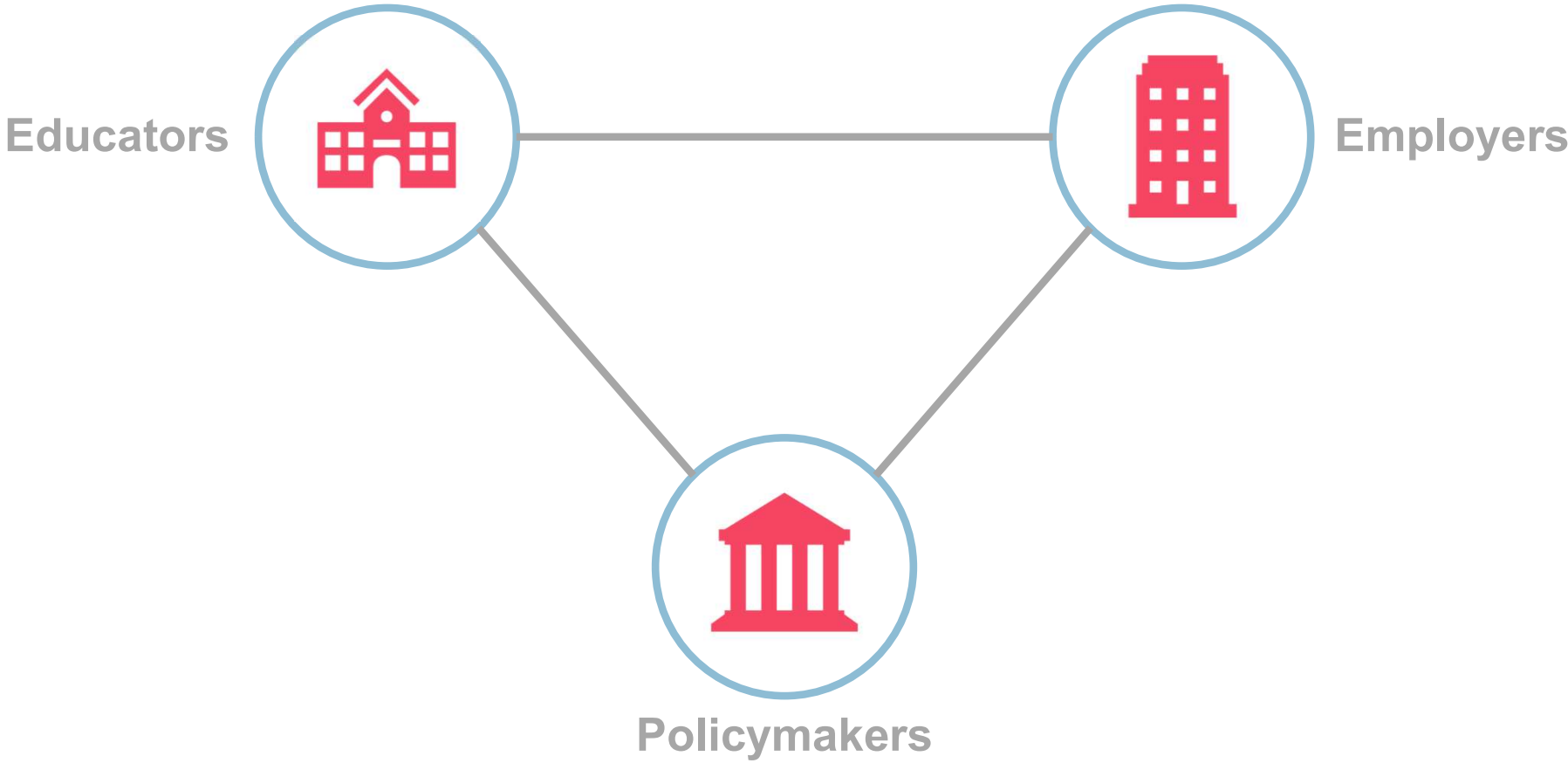
Grow and Advance Workers from Diverse Backgrounds with Reskilling Pathways

Example: Pathways into Cybersecurity Analyst

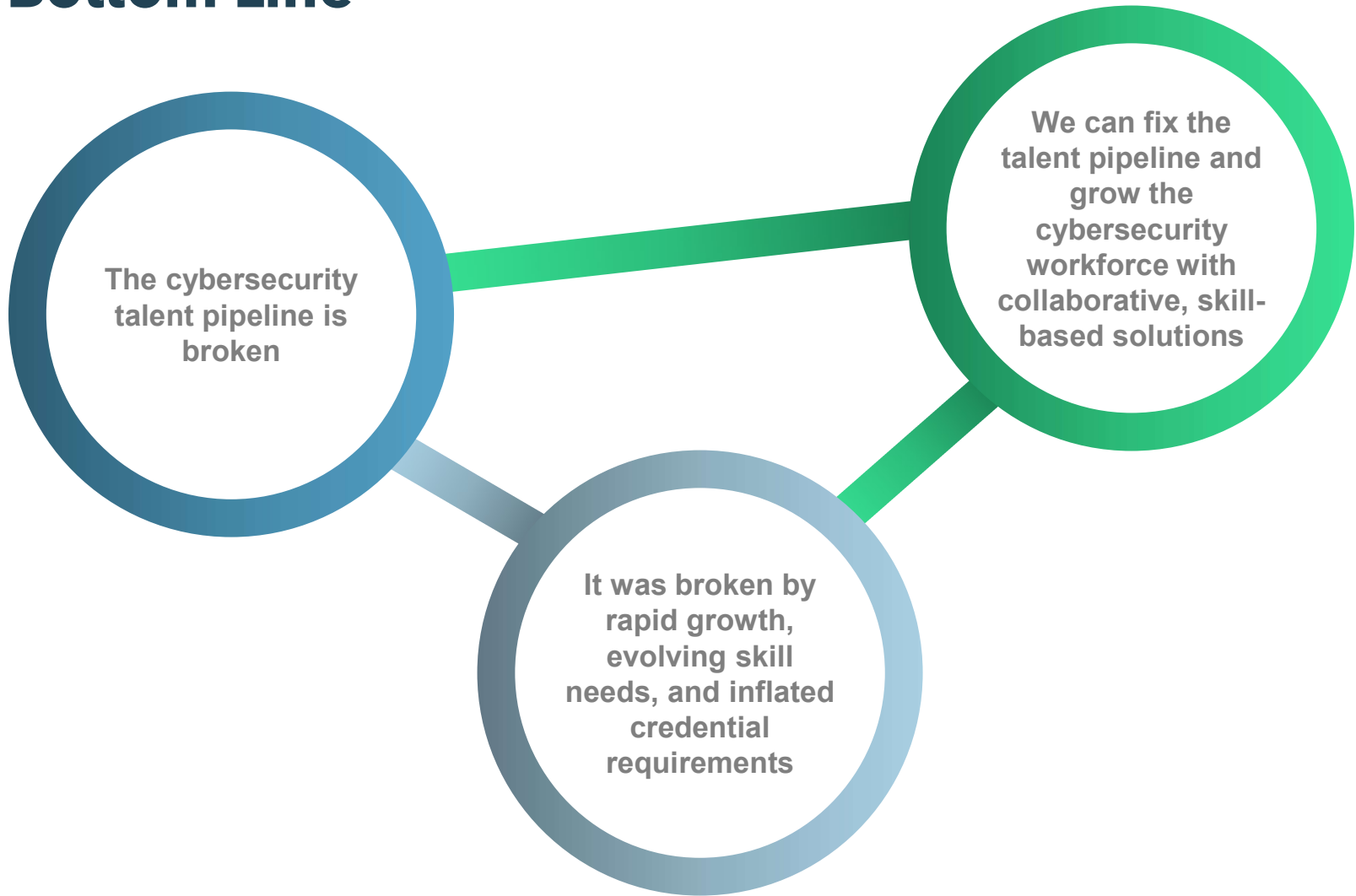


Find Others With Skin in the Game

Partner with Local Employers, Policymakers, and Training Providers to Build the Next Generation of Cybersecurity Workers



The Bottom Line



Questions?





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Learn More:

[Lightcast.io](https://lightcast.io)

CyberSeek.org

